

## CLAIMS

What is claimed is:

1. A suction ring for an orbital sander including a motor having a rotatable shaft with a radially off-set portion, a suction housing mounted to the motor around the motor shaft and connectable  
5 with a vacuum source for supplying vacuum pressure around the shaft, and a sanding pad assembly having a plurality of apertures therethrough, said suction ring comprising:

an annular frame having a circumferential  
10 side wall including first and second circumferential edges and disposed between said suction housing and said sanding pad assembly;

one of said edges defining an opening and adapted to mount to the sanding pad assembly;

15 a circular back wall having an opening therein for communicating said vacuum pressure from said suction housing to said orbital sanding pad assembly;

said back wall being continuous with the  
20 other of said circumferential edges of said circumferential side wall;

whereby said sanding pad assembly is supported against flapping by said suction ring and sanding waste can be communicated through said  
25 sanding pad passageways and suction ring to said suction housing.

2. The suction ring of claim 1 further comprising:

a plurality of radially disposed ribs extending generally from said circumferential side wall to a like plurality of leg members disposed about said opening in said circular back wall, stiffening said suction ring and sanding pad assembly.

3. The suction ring of claim 1 wherein said ring is made generally of aluminum material.

4. A rotary orbital sander, comprising:

a motor having a rotatable shaft with a radially off-set portion;

a suction housing mounted to the motor, around said motor shaft and connectable with a vacuum source,

a sanding pad assembly mounted to the radially off-set portion of said shaft;

said sanding pad assembly further including a backing pad having a plurality of apertures therethrough and an annular frame having a circumferential side wall including first and second circumferential edges and disposed between said suction housing and said sanding pad assembly;

a circular back wall extending from one of said circumferential edges and having an opening therein sealable with said suction housing; and

the other of said circumferential edges being attached to said backing pad.



- 5 the disk align with the apertures in the sanding pad assembly.

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